In the Claims:

Please amend the claims as indicated.

1.   (Currently amended) An apparatus for logging diagnostic information, the apparatus comprising:

at least one software module configured to provide diagnostic information to a bus;

a plurality of buffers configured to store data;

a buffer management module configured to transfer diagnostic information from the bus to a selected buffer of the plurality of buffers; ~~and~~

the buffer management module further configured to transfer the diagnostic information from the selected buffer to a diagnostic log corresponding to the selected buffer[[.]]; and

the buffer management module further configured to transfer the diagnostic information from the bus to a selected buffer memory device in response to a processor cache line flush.

2.   (Currently amended) The apparatus of claim 1, wherein the plurality of buffers are configured as a plurality of First In First Out (FIFO) memory devices[[ ]].

3.   (Original) The apparatus of claim 1, wherein the plurality of buffers are configured as a plurality of circulating buffer memory devices.

4.   (Original) The apparatus of claim 1, wherein the buffer management module is further configured to transfer variable-length diagnostic information from the bus to the selected buffer.

5.   (Canceled)

6. (Original) The apparatus of claim 1, wherein the buffer management module is further configured to transfer the diagnostic information from a selected buffer to the diagnostic log without consuming processor cycles.

7. (Original) The apparatus of claim 1, wherein the diagnostic log resides within a processor-accessible memory.

8. (Original) The apparatus of claim 1, wherein the diagnostic log resides within a multiple-use memory.

9. (Original) The apparatus of claim 1, further comprising a decoder module configured to match a bus state with at least one tracing pattern register.

10. (Original) The apparatus of claim 1, wherein the bus is a processor data bus.

11. (Original) The apparatus of claim 1, further comprising a control register configured to store a starting address of a selected buffer.

12. (Original) The apparatus of claim 1, further comprising a control register configured to store an extent of a selected buffer.

13. (Original) The apparatus of claim 1, further comprising a control register configured to store a starting address of a diagnostic log associated with a selected buffer.

14. (Original) The apparatus of claim 1, further comprising a control register configured to store an extent of a diagnostic log associated with a selected buffer.

15. (Currently amended) A computer readable storage medium comprising computer readable program code for logging diagnostic information, the program code configured to conduct a method comprising:

       providing diagnostic information to a bus;

       administering a buffer management module, including:

              transferring diagnostic information from the bus to a selected buffer of a plurality of buffers configured to store data in response to a processor cache line flush; and

              transferring diagnostic information from a selected buffer to a diagnostic log corresponding to the selected buffer.

16. (Original) The computer readable storage medium of claim 15, wherein the selected buffer is configured as a First In First Out memory device.

17. (Original) The computer readable storage medium of claim 15, wherein the diagnostic information is variable-length.

18. (Canceled)

19. (Original) The computer readable storage medium of claim 15, wherein the buffer is configured as circulating buffer memory device.

20. (Original) The computer readable storage medium of claim 15, wherein transferring diagnostic information from a selected buffer to a diagnostic log comprises transferring the diagnostic information from the selected buffer to the diagnostic log without consuming processor cycles.

21. (Currently amended) An apparatus for logging diagnostic information, the apparatus comprising:

 means for providing diagnostic information to a bus;

 means for transferring the diagnostic information from the bus to a selected buffer of a plurality of buffers ~~and~~

 means for transferring the diagnostic information from the selected buffer to a diagnostic log corresponding to the selected buffer[[.]]<u>;</u>

 <u>means for transferred diagnostic information from the bus in response to a processor cache line flush.</u>

22. (Canceled)

23. (Original) The apparatus of claim 21, further comprising means for transferring diagnostic information from the selected buffer to the diagnostic log without consuming processor cycles.

24. (Currently amended) A system for logging diagnostic information, the system comprising:

 at least one module configured to provide diagnostic information to a bus;

 a plurality of buffers configured to store data;

a buffer management module configured to transfer diagnostic information from the bus to a selected buffer of the plurality of buffers; ~~and~~

the buffer management module further configured to transfer the diagnostic information from the selected buffer to a diagnostic log corresponding to the selected buffer[[.]]; and

 the buffer management module further configured to transfer the diagnostic information from the bus to a selected buffer memory device in response to a processor cache line flush.

25. (Currently amended) The system of claim 24, wherein the plurality of buffers are configured as a plurality of First In First Out (FIFO) memory devices[[ ]].

26. (Original) The system of claim 24, wherein the plurality of buffers are configured as a plurality of circulating buffer memory devices.

27. (Original) The system of claim 24, wherein the buffer management module is further configured to transfer variable-length diagnostic information from the bus to the selected buffer.

28. (Canceled)

29. (Original) The system of claim 24, wherein the buffer management module is further configured to transfer the diagnostic information from a selected buffer to the diagnostic log without consuming processor cycles.

30. (Currently amended) A method for logging diagnostic information, the method comprising:

providing diagnostic information to a bus;

transferring the diagnostic information from the bus to a selected buffer of a plurality of buffers in response to a processor cache line flush; and

transferring the diagnostic information from the selected buffer to a diagnostic log corresponding to the selected buffer.

31. (Currently amended) A FIFO management module, comprising:

a first transfer module configured to initiate a transfer of diagnostic information from a bus to a selected FIFO memory device in response to a processor cache line flush; and

a second transfer module configured to initiate a transfer of the diagnostic information from the selected FIFO memory device to a diagnostic log corresponding to the selected FIFO memory device.

32. (Original) The FIFO management of claim 31, wherein the FIFO memory device is configured to transfer the diagnostic information from the selected memory device to the diagnostic log without consuming processor cycles.